

## REMARKS

The Examiner rejected claims 1, 15, 30, and 32 under 35 U.S.C. §102(b) as being anticipated by Lin. Applicant respectfully disagrees. Claims 1, 15, and 32 recite, “a tool insertable into an end of the tubular work piece held by the work piece holder.” Claim 30 recites, inserting a work piece into a work piece holder such that the work piece inserts over a tool.” Lin discloses a tube cutter having cutting blades 30 that cut a tubular work piece. However, the cutting blades of Lin do not insert into an end of the tubular work piece. In contrast, they contact and cut the sides of the tube along its exterior length. *E.g. Lin*, Fig. 1. Lin does not teach that the cutting blade is insertable into an end of the tool, and in fact, is not designed to do so. As such, Lin fails to anticipate any of claims 1, 15, 30, and 32 under §102.

The Examiner has also maintained the rejection to claim 1 under 35 U.S.C. §103(a) as being unpatentable over Vernacchio in view of Tseng. Claim 1 recites, “a first rotating cam to drive the tool holder in the first direction during a first phase of a tool cycle to engage the tool with a first side of the work piece ... [and] ...a second rotating cam driven synchronously with the first rotating cam to drive the tool holder in a second direction during a second phase of the tool cycle to engage the tool with the second side of the work piece.” The §103 rejection fails for the following reasons.

First, the Examiner maintains the assertion that the tool of Vernacchio engages a first side of a tube (i.e., the interior of the tube) and then a second side (i.e., the exterior of the tube) as it cuts the tube. The Examiner makes the same assertion with respect to the paper punch of Tseng – that the punch pins engage the first side of the paper as they punch the paper, and the opposite side of the paper as the pins punch through the paper. This is nothing more than an arbitrary assignment of “first and second sides.” Neither reference teaches - or does – anything of the sort. The tools of the respective references engage one side only.

Second, even if the references could be construed as the Examiner asserts (which they cannot), the tools never engage the alleged second side in a second direction. The tool of

Vernacchio and the pins of Tseng cut in one direction only. Thus, even if the tools could engage both “sides” of a work piece, it would only be in a single (i.e., first) direction. The Examiner’s own reasoning supports this fact. “A sheet of paper has two sides ... As the pins penetrate a sheet of paper, they engage the second side.” *Office Action*, pg. 9, ll. 5-6 (emphasis added). “Inner wall and outer wall of the tube are considered as a first side and a second side. As the tool penetrates the tube, it engages the second side.” *Office Action*, pg. 9, ll. 11-13 (emphasis added).

Third, claim 1 requires first and second rotating cams to drive **the** tool holder. The Examiner admits that Vernacchio fails to disclose this element, but relies on Tseng to correct this deficiency. Tseng discloses a plurality of “cams,” but each alleged “cam” drives its own punch. The Examiner even supports this fact. “Tseng ... teaches providing a plurality of driving cams to drive a plurality of tools.” Neither reference teaches or suggests that first and second cams drive a single tool holder.

Finally, the proffered motivation simply fails scrutiny. The Examiner asserts that “[i]t would have been obvious ... to provide the tube-forming device of Vernacchio two tool holders side by side, each [having] a driving cam as taught by Tseng to cut more tubes in less time.” *Office Action*, pg. 7, ll. 9-12 (emphasis added). Claim 1 says nothing about “two tool holders side by side,” and nothing about “each [having] its own cam.” Thus, not only does the alleged motivation *not* produce Applicant’s invention, but it appears to create a different invention altogether. Simply put, neither reference teaches or suggests, alone or in combination, claim 1. As such, the §103 rejection fails.

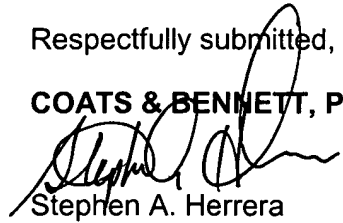
The Examiner also rejected claim 15 under 35 U.S.C. §103(a) as being unpatentable over Vernacchio in view of Tseng citing the same reasons as those stated above for claim 1. However, claim 15 contains language similar to that of claim 1. Thus, for reasons similar to those stated above, neither Vernacchio nor Tseng teaches or suggests, alone or in combination, claim 15.

In light of the above remarks, Applicant respectfully requests the allowance of all pending claims 1-40.

Respectfully submitted,

**COATS & BENNETT, P.L.L.C.**

By:

A handwritten signature in black ink, appearing to read "Stephen A. Herrera", is written over the firm name and the word "By:".

Stephen A. Herrera  
Registration No. 47,642

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P.O. Box 5  
Raleigh, NC 27602  
Telephone: (919) 854-1844